



### Pinion Kit Fitting Instructions

*LMPK\*\*\*\* denotes the part is a pinion kit, the first two numbers denote the number of teeth on the pinion and the final two numbers denote the diameter of the gear.*

In order to replace the pinion gear on your high torque starter you will require a pair of long nose pliers or mull grips, a small flat headed screw driver and a 13mm socket.

- Clamp the starter either side of the cast aluminium solenoid housing in a pair of soft jaws on a vice so that the gear end of the starter is pointing upwards.
- Manually pull the pinion gear out of the front of the starter in order to recreate what it would do once it was fully engaged. This then provides you with a minimum of 13mm of shaft to clamp on to in order to stop the pinion being retracted back into the starter. Do not worry about the mull grips harming the shaft as these are case hardened so it will be very difficult to damage.
- Once the pinion is being held in the fully engaged position you will be able to manually compress the pinion where a built in spring within the gear compresses allowing you to knock the jump ring retainer backwards to expose the jump ring / lock ring. The 13mm socket will be ideal for knocking the jump ring retainer off.
- Once the pinion is compressed and the jump ring retainer has been knocked back so it is as far against the nose of the pinion as possible take your flat headed screw driver to prise the jump ring out of the recess and off the front of the shaft.
- Now with the jump ring off the shaft you can remove the retainer and pinion to reveal a spring and star washer. The star washer prevents the spring from sliding along the shaft and keeps it retained within the gear.
- Remove the gear you want to replace leaving the spring and star washer in place. Put on your new pinion gear, compress, slide on the jump ring retainer, lever back on the jump ring and compress as much as possible with some pliers then release the mull grips and the spring should pull the jump ring into the retainer.
- You are now ready to re-fit the starter back on to the vehicle..